## REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 17 February 1993	3. REPORT TYPE A	REPORT TYPE AND DATES COVERED	
4. TITLE AND SUBTITLE			5. FUNDING NUMBERS	
Injury Risk Factors Among	Male and Female Ar	my Trainees		
6. AUTHOR(S)				
Nicole S. Bell and Bruce	H. Jones			
7. PERFORMING ORGANIZATION NAME(	S) AND ADDRESS(ES)		8. PERFORMING ORGANIZATION REPORT NUMBER	
U.S. Army Research Instit Natick, MA 01760-5007	ute of Environmenta	al Medicine		
9. SPONSORING/MONITORING AGENCY			10. SPONSORING / MONITORING	

11. SUPPLEMENTARY NOTES

Abstract presented at American Public Health Association 121st Annual Meeting, San Francisco, CA, 24-28 October 1993

12a. DISTRIBUTION / AVAILABILITY STATEMENT

12b. DISTRIBUTION CODE

19960419 082

Approved for public release; distribution is unlimited

13. ABSTRACT (Maximum 200 words)

This study documents incidence of and risk factors for injury among women and men during 8 wks of Army Basic Training. Participants were 745 trainees (293 women, 452 men). Data included demographics (age, race, sex), anthropometrics (HT, WT, %Fat), fitness scores (pushups, situps, run time) and injury incidence. Injury data were obtained by review of every participant's medical record. The crude relative risk (RR) of injury, for women v men, was 2.1 (60% injured v 29%) and the crude RR for time-loss injury was 2.3 (42% v 19%). There was a significant trend of increasing injury risk for successively slower quintiles of run times (women: risks, fast to slow= 46%, 57%, 62%, 71%, 67%, MH trend p=.005; men: risks, fast to slow= 21%, 21%, 30%, 33%, 41%, MH trend p=.0005). Adjusted RR for women vs men, stratified on run time, was 1.4 (p=.01). In a logistic regression model containing Age, Race, Sex, Ht, %BD, Situps, and Run Time, only Run Time was significantly associated with odds of injury per se may be less important than physical fitness in predicting injury among very active young adults.

14. SUBJECT TERMS			15. NUMBER OF PAGES
risk factors, injury	1		
, J	· · · · · · · · · · · · · · · · · · ·	·	16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UL

## **GENERAL INSTRUCTIONS FOR COMPLETING SF 298**

The Report Documentation Page (RDP) is used in announcing and cataloging reports. It is important that this information be consistent with the rest of the report, particularly the cover and title page. Instructions for filling in each block of the form follow. It is important to *stay within the lines* to meet *optical scanning requirements*.

- Block 1. Agency Use Only (Leave blank).
- **Block 2.** Report Date. Full publication date including day, month, and year, if available (e.g. 1 Jan 88). Must cite at least the year.
- **Block 3.** Type of Report and Dates Covered. State whether report is interim, final, etc. If applicable, enter inclusive report dates (e.g. 10 Jun 87 30 Jun 88).
- Block 4. <u>Title and Subtitle</u>. A title is taken from the part of the report that provides the most meaningful and complete information. When a report is prepared in more than one volume, repeat the primary title, add volume number, and include subtitle for the specific volume. On classified documents enter the title classification in parentheses.
- **Block 5.** Funding Numbers. To include contract and grant numbers; may include program element number(s), project number(s), task number(s), and work unit number(s). Use the following labels:

C - Contract PR - Project
G - Grant TA - Task
PE - Program WU - Work Unit
Element Accession No.

**Block 6.** Author(s). Name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. If editor or compiler, this should follow the name(s).

- **Block 7.** Performing Organization Name(s) and Address(es). Self-explanatory.
- **Block 8.** <u>Performing Organization Report</u>
  <u>Number</u>. Enter the unique alphanumeric report number(s) assigned by the organization performing the report.
- **Block 9.** Sponsoring/Monitoring Agency Name(s) and Address(es). Self-explanatory.
- **Block 10.** Sponsoring/Monitoring Agency Report Number. (If known)

Block 11. Supplementary Notes. Enter information not included elsewhere such as: Prepared in cooperation with...; Trans. of...; To be published in.... When a report is revised, include a statement whether the new report supersedes or supplements the older report.

**Block 12a.** <u>Distribution/Availability Statement.</u>
Denotes public availability or limitations. Cite any availability to the public. Enter additional limitations or special markings in all capitals (e.g. NOFORN, REL, ITAR).

DOD - See DoDD 5230.24, "Distribution Statements on Technical Documents."

**DOE** - See authorities.

NASA - See Handbook NHB 2200.2.

NTIS - Leave blank.

Block 12b. Distribution Code.

**DOD** - Leave blank.

DOE - Enter DOE distribution categories from the Standard Distribution for Unclassified Scientific and Technical Reports.

NASA - Leave blank. NTIS - Leave blank.

**Block 13.** Abstract. Include a brief (Maximum 200 words) factual summary of the most significant information contained in the report.

**Block 14.** <u>Subject Terms</u>. Keywords or phrases identifying major subjects in the report.

**Block 15.** <u>Number of Pages</u>. Enter the total number of pages.

**Block 16.** Price Code. Enter appropriate price code (NTIS only).

Blocks 17. - 19. Security Classifications. Self-explanatory. Enter U.S. Security Classification in accordance with U.S. Security Regulations (i.e., UNCLASSIFIED). If form contains classified information, stamp classification on the top and bottom of the page.

Block 20. <u>Limitation of Abstract</u>. This block must be completed to assign a limitation to the abstract. Enter either UL (unlimited) or SAR (same as report). An entry in this block is necessary if the abstract is to be limited. If blank, the abstract is assumed to be unlimited.

	MEM	ORANDUM FOR Commander, USARIEM
	SUB	JECT: Request for Clearance of Technical Paper (USARIEM)
	$\mathbf{x}$	Reference AR 360-5, request clearance of enclosed manuscript, abstract, presentation, technical report, review article. Report amentation Page, DD Form 1473 (is) (is not) enclosed.  Title Injury Risk Factors Among Male and Female Army Trainees  Author(s) Nicole S. Bell and Bruce H. Jones
		Title Injury Risk Factors Among Male and Female Army Trainees
H,	1_	Author(s) Nicole S. Bell and Bruce H. Jones
17	evi	Intended for publication in
		Intended for presentation before APHA 121st Annual Meeting  Location San Francisco, CA  Date Oct
	2.	Budget Project No. STO 3W; Task WB 3M162787A879 Cost Code 3430285WB3A0024()
	scie	Enclosed contains no classified material. It meets accepted standards for entific accuracy and propriety. It contains no potentially sensitive or troversial items.
	Encl	BRUCE H. JONES, LTC, MC Chief, Occupational Medicine Division  Medicine Division
	SGRI	D-UE-Z 1st End
		mander, USARIEM
	THRU FOR	Resource Management Branch
		Clearance is granted.
		Clearance is not granted.
		This document must be forwarded to USAMRDC for clearance.

GERALD P. KRUEGER Colonel, MS

Commanding

CLEARANCE NO. <u>P52-93 (Al.,)</u>

Encl

nc

(Author making)	resentation)		
Name and title		S. Bell,	MPH.
	8 Non	•	RIVE
Address			
ciu. NA	71616	State MA	7in 01760
Telephone (S			Zip
reichiione	· · · · · · · · · · · · · · · · · · ·		<u> </u>

## Call for Abstracts APHA 121st Annual Meeting San Francisco, CA—October 24 – 28, 1993

Persons wishing to contribute presentations or papers to be consered for the APHA Annual Meeting must submit an abstract of work on the form provided below. The abstract form must accompanied by an Author/Co-Author ID Form. The 2 forms sho be mailed to the designated Section, SPIG, or Caucus Representat and RECEIVED no later than February 10, 1993. Do not subt the same abstract to more than one Section or APHA compone

TYPE ABSTRACT TITLE IN UPPER CASE LETTERS.

Type author(s) and co-author(s) name(s) using upper and lower case letters and underline, with presenter's name listed first as the only one to receive the detailed program participant mailing. Four abstracts without the authors' names should also be sent for blind review. Type abstract text, flush left, single-spaced, within parameters of box, using carbon ribbon standard size type. Abstract should be of camera-ready quality, suitable for 50% reduction. A completed author/ co-author ID form must accompany each abstract. If the total number of authors and/or coauthor exceeds three, please xerox and complete the appropriate number of ID Forms. Send original abstract and 4 copies of the abstract to the appropriate chairperson, accompanied by a self-addressed stamped envelope for notification of acceptance or rejection. Enclose a stamped, self-addressed postcard if you want notification of receipt of abstract. FAX copies of the abstracts will NOT be accepted. Deadline for receipt of abstracts is February 10, 1993. Notification will be mailed in June. Consult the January issue of the The Nation's Health or the February issue of the American Journal of Public Health for the specific topics and requirements for Sections, SPIGs, and Caucuses. If requirements and instructions are not followed, your abstract will not be considered for review. NOTE TO NON-MEMBERS: Contributed papers may only be read by APHA members. Non-members may submit a contributed paper but it may ONLY be read by an APHA member.

TO BE ( PROGRA	COMPLE M CHAIF	
SESSION:		
Day		
Date		
Time: Fron	n	. To
Primary Sponso	r	
ABSTRACT:		Contributed
	$\Box$	Solicited
t-ment = 1114	HE LIT	H ST-AV

commence payer carriers, contact of annual contact of	1 1		
Section, SPIG, Caucus, or APHA Group Abstract submitted to: 343066	S CONTROL + EM	ERGENCY HEALTH	SCRV.
I have submitted this abstract to only ONE section/component of APHA	Niwa S. B	ell	(sign
If your abstract is selected for presentation, do you prefer to present it as a: 🧯	poster; Մ verbal pre	esentation; roundtable;	any of th
AV equipment needed (subject to approval by Section Program Planner):	<u>X</u> Slide proj	ector or Overhead pr	rojector 🔪
Are self-addressed stamped envelope and postcard enclosed?	_X_ Yes	No	
Are original abstract (and 4 blind review copies) and all author ID forms end	closed? X Yes	No	
· ·			

INJURY RISK FACTORS AMONG MALE AND FEMALE ARMY TRAINEES Nicole S. Bell, M.P.H., Bruce H. Jones, M.D. This study documents incidence of and risk factors for injury among women and men during 8 wks of Army Basic Training. Participants were 745 trainees (293 women, 452 men). Data included demographics (age, race, sex), anthropometrics (HT, WT, %Fat), fitness scores (pushups, situps, run time) and injury incidence. Injury data were obtained by review of every participant's medical record. The crude relative risk (RR) of injury, for women v men, was 2.1 (60% injured v 29%) and the crude RR for timeloss injury was 2.3 (42% v 19%). There was a significant trend of increasing injury risk for successively slower quintiles of run times (women: risks, fast to slow= 46%, 57%, 62%, 71%, 67%, MH trend p=.005; men: risks, fast to slow= 21%, 21%, 30%, 33%, 41%, MH trend p=.0005). Adjusted RR for women vs men, stratified on run time, was 1.4 (p=.01). In a logistic regression model containing Age, Race, Sex, Ht, %BF, Situps, and Run Time, only Run Time was significantly associated with odds of injury (OR=1.2 per min., p=.02). The data suggest that gender per se may be less important than physical fitness in predicting injury among very active young adults.